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CONTRACT PRODUCTION OF TRUCK CROPS

12 SELECTED AREAS UNITED STATES

FARM PRODUCTION ECONOMICS DIVISION
ECONOMIC RESEARCH SERVICE
U.S. DEPARTMENT OF AGRICULTURE

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Washington, D. C. March 1964

SUMMARY

Well-defined systems of coordination have been developed in truck crop farming to tie together successive stages in production and marketing. Modern technology has increased the need for this close coordination as a protection against the natural and economic hazards that characterize vegetable production.

Information was obtained from nearly 2,500 vegetable growers in 12 areas about contracting and vertical integration in their operations. About a third of the growers and a fifth of the total acreage surveyed were under contract. A further 5 percent of the growers were dealers or processors who grew another fifth of the total acreage.

Contracting is more prevalent in the production of vegetables for processing than in the production of vegetables for fresh market. About two-thirds of the acreage of vegetables for processing was under contract, compared with less than a tenth of the acreage for fresh market.

By contrast, vertical integration in production is more common in vegetables grown for fresh market than in vegetables intended for processing. Growers handled the dealer and processor stages for about a fourth of the acreage for fresh market, as compared with only 5 percent of the acreage for processing.

The percentage of growers with contracts varies greatly by area and by commodity. Variations are due partly to custom, but more often to differences in the need for control of quality or production techniques. For example, nearly all green peas for processing were under contract because close supervision of factors controlling quality and timing appeared to be essential. Only about half of processing tomatoes were under contract, where supervision is somewhat less pressing.

Specifications set forth in contracts varied widely between crops and areas, but differences were greater between areas. Price arrangements were indicated in a large proportion of contracts, either in terms of specific price commitments, or in terms of how the price was to be figured.

Many different specifications for variety, grade, seed, fertilizer, and cultural practices were found in contracts. Most contracts supplied at least some labor, equipment, materials, or financing for these items. Three-fourths specified a fieldman for advice, counsel, and inspection. The fieldman is a key link in the decision-making process.

CONTRACT PRODUCTION OF TRUCK CROPS
12 SELECTED AREAS, UNITED STATES

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INTRODUCTION

Information on truck crop production reported in this study was obtained from nearly 2, 500 vegetable growers in 12 selected areas by personal interview. This report is primarily concerned with the extent and nature of contracting and vertical integration in the production of truck crops. It is part of a larger study of the same sample of farms made in 1959 for the crop year 1958-59. The other parts of the overall study were concerned with an analysis of labor and material inputs used in the production of truck crops (2 to 8). 1/

As defined here, contracting and integration have the following meanings. Contracting refers to arrangements between independent firms for providing goods or services. Vertical integration means the joining in one firm of two or more stages of production. More specifically, contracting is between vegetable growers and processors or dealers; vertical integration occurs when a processor or dealer is also a grower. Truck crops occupy only a small part of the total cropland harvested in the United States, about 1 percent in 1959. But their economic importance is indicated by the fact that vegetables made up 11. 5 percent of the total value of farm marketings in the same year (15). They have even greater local significance because of the high concentration of vegetable production in favorable areas.

Major vegetable production areas stand out sharply in figures 1 and 2 in terms of acreage and value of marketings. Note the dense clustering in California, Texas, Florida, the eastern seaboard, and the Lake States.

1/ Underscored numbers in parentheses refer to Literature Cited, page 16.

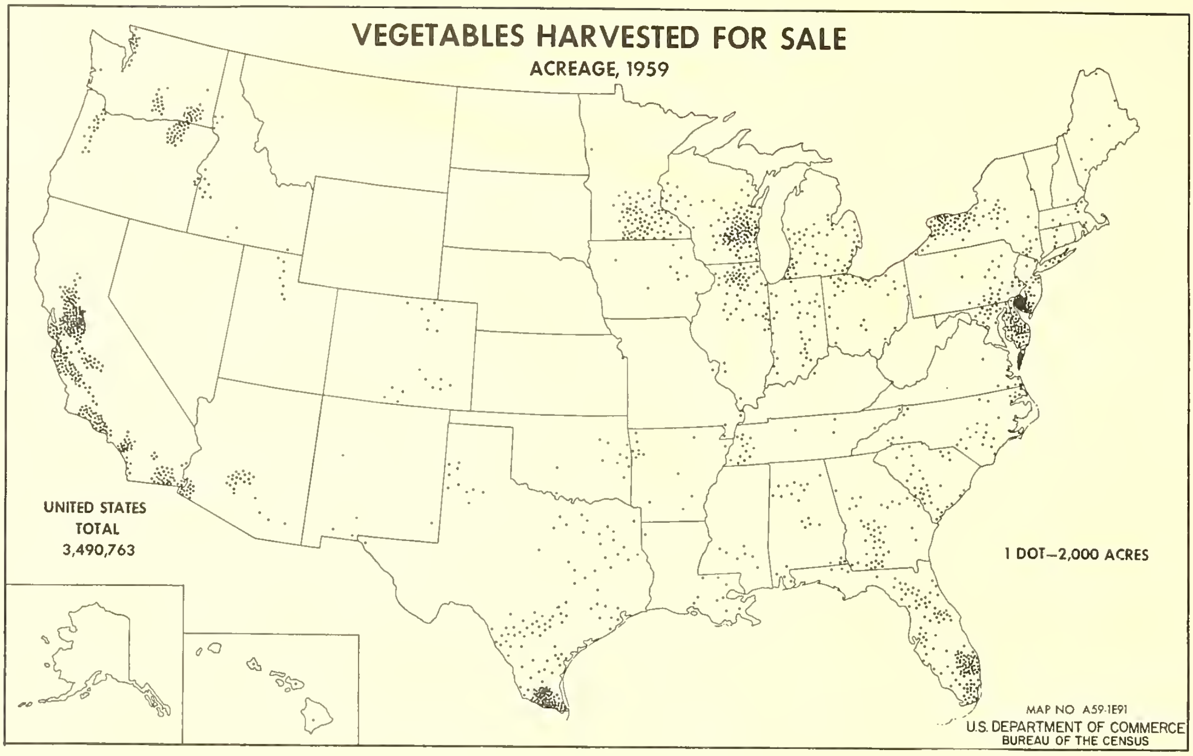

Figure 1

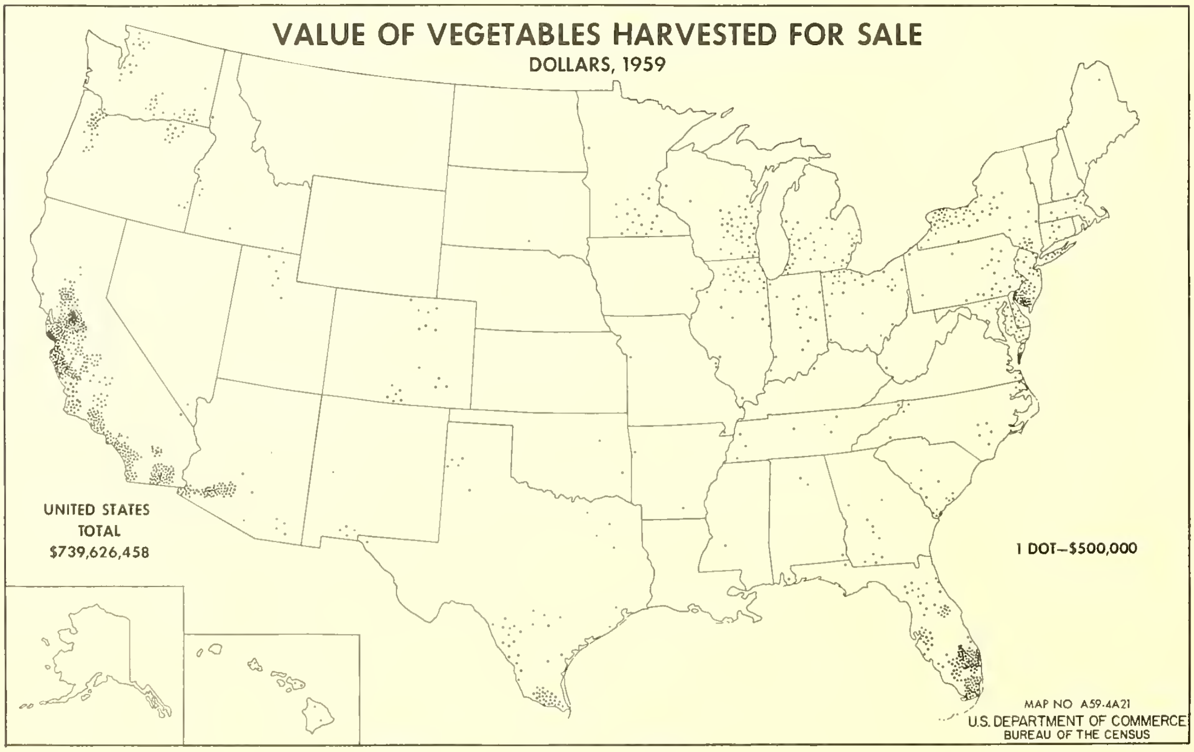

Figure 2

VERTICAL RELATIONSHIPS

The origins of any system of vertical coordination are related to the development of the industry concerned. Changes in the physical methods and technology of production give rise to corresponding changes in the economic coordination of the various stages of production and marketing.

Before the days of refrigerated transportation and modern processing, vegetable production was a small-scale seasonal industry confined to limited areas near urban centers. The German economist, Von Thünen, in his classical work on location theory, "The Isolated State," included a vegetable growing area in one of the inner concentric circles surrounding his imaginary city-state (16).

His theoretical model was close to the reality of his day with respect to the place of vegetables and other bulky and perishable commodities. At that time a vegetable grower could produce for his local market without much fear of economic loss. He operated a "market-garden" and grew small amounts of a large number of crops. Diversity insured him against natural and market hazards that might strike any one crop, and his competitors were all in plain view. The advent of transportation, refrigeration, and commercial canning and processing enabled vegetable production to develop thousands of miles from ultimate consuming markets. The first canning companies grew their own produce, but it was not long before it was found more profitable to contract with farmers for the growing operations. Some processors continued to grow limited acreages for experimental, demonstration, or yardstick purposes, but most of them found it better to specialize in processing.

Technology influenced the production of vegetables for fresh market in a different way. Rapid freight and refrigeration made possible large-scale operations in areas remote from consumers. Here forward integration into marketing stages seems to have been preferred over contractual arrangements.

These developments can about gradually. Consider canning, for example, A large cash prize for a practical method of food preservation offered by the French Government was won in 1809 by a Parisian confectioner, Francois Appert. He developed an empirical method for preserving food in glass bottles with boiling water, The Appert process was brought to the United States in 1820. Although tin cans were introduced in 1839, it was not until 1860 that Pasteur provided the first scientific basis for controlling micro-organisms in food.

For a long time canning was mainly a household do-it-yourself enterprise. Not until the invention of the open-top tin can, about 1905, did the great expansion in commercial canning begin.

As nearly all vegetable crops are relatively perishable similar considerations apply in some degree to most of them. The high degree of specialization characteristic of many vegetables, both for processing and for fresh market, would not be possible if growers were not able to reduce the total hazards through contracts and agreements in advance of production. 2/ Contracts provide an efficient means of dividing the whole enterprise among different specialists.

2/ For an interesting and revealing discussion of contracting relationships between growers and processors of one vegetable crop--tomatoes--in California, see the grower-processor study by Collins, Mueller, and Birch (1). See also Mueller and Collins, 1957 Jour. Farm Econ. (11).

Another way of reducing hazards in vegetable production is through vertically integrating or merging growing operations with some of the succeeding stages of processing and marketing. This method has not been adopted to any great extent with vegetables for processing because it usually appears to be more troublesome and less efficient than contracting. Even with many vegetables for fresh market, only a small proportion of growers have found merging a desirable solution. However, in some instances a concentration of acreage for fresh market in the hands of a few large growers who are also dealers has occurred. The additional capital investment required is much less than is needed for processing operations.

THE SELECTED AREAS

The 12 areas selected for the study are outlined in figure 3. They are the counties of (1) Erie, N. Y., (2) Accomack and Northampton, Va., (3) Colquitt, Ga., (4) Broward and Palm Beach, Fla., (5) Cameron and Hidalgo, Tex., (6) Berrien and Van Buren, Mich., (7) Columbia, Wis., (8) Yakima, Wash., (9) Marion, Oreg., (10) Imperial, Calif., (11) Monterey, Calif., and (12) San Joaquin, Calif.

Comparisons with figures 1 and 2 show that the sample areas were selected from some of the more significant centers of vegetable production. Among the factors involved in the selection were diversity of crops grown, including representation of both fresh and processed vegetables, seasonality of production, and number and size of farms harvesting truck crops for sale.

Within each area, personal interviews were conducted with growers from a random sample. The survey population was defined as all farmers producing truck crops for sale whose farm headquarters were located within the survey area. Excluded were those residing outside the county or more than 20 road miles from their headquarters in the survey area.

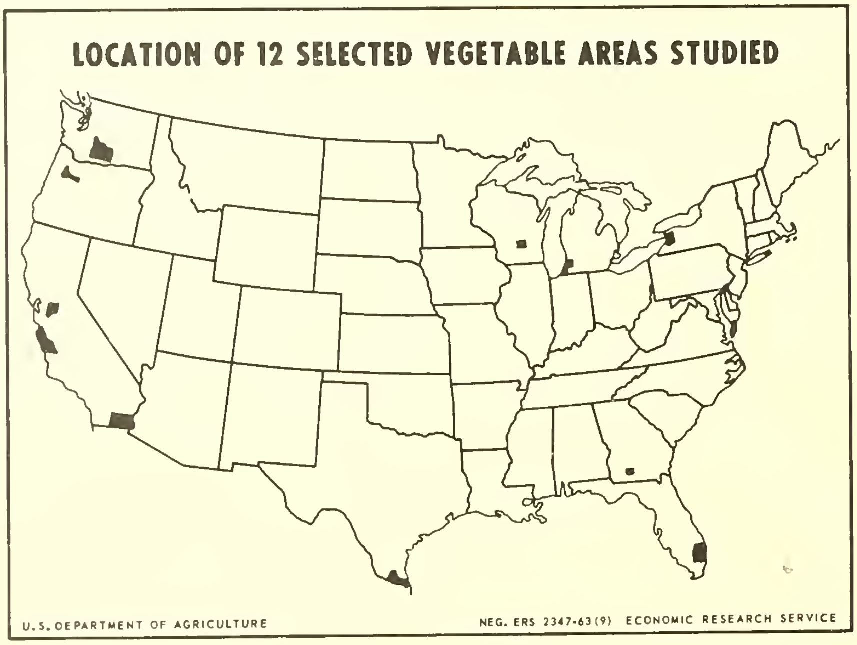
LOCATION OF 12 SELECTED VEGETABLE AREAS STUDIED

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Figure 3

GENERAL BACKGROUND

Altogether 2,496 truck growers were personally interviewed (table 1). 3/ They grew a total of 5,054 separate truck-crop plantings, of which 3,724 were for fresh market and 1,330 were for processing (table 2). The vegetable acreage covered in the survey amounted to more than 6 percent of the acreage of commercial vegetables harvested in the United States in 1959. It included about 9 percent of the acreage of vegetables for fresh market and 3 percent of the acreage of vegetables grown for processing.

In this study only growers were interviewed, and not very much information was obtained about buying firms. About 5 percent of the growers were also processors or dealers. Three areas in which this type of integration was most common were Broward-Palm Beach, Fla., Monterey, Calif., and Accomack, Va. (appendix table 10).

About a fourth of the growers operated their own packing sheds, particularly large growers without contracts. Processors and dealers usually had their own packing sheds, while cooperatives often handled this function for their members.

Many different vegetables are grown in the 12 areas. Some 45 vegetables were listed, ranging from artichokes and asparagus to tomatoes and turnips. Some crops, such as lettuce, cabbage, and carrots, are grown mainly for fresh market. Others, for example, green peas, are grown primarily for processing. Such crops as tomatoes, snap beans, and sweet corn are important for both fresh market and processing uses.

Table 1.--Growers of truck crops interviewed and proportion with contracts, 12 selected areas, 1958-59

County and State	Growers interviewed		Percentage with contracts
	Total	With contracts	
	Number	Number	Percent
Erie, N. Y	198	81	41
Berrien-Van Buren, Mich	346	120	35
Columbia, Wis	90	88	98
Accomack-Northampton, Va	202	25	12
Colquitt, Ga	125	2	2
Broward-Palm Beach, Fla	146	2	1
Cameron-Hidalgo, Tex	484	51	11
Yakima, Wash	262	169	65
Marion, Oreg	164	142	87
San Joaquin, Calif	250	106	42
Monterey, Calif	121	75	62
Imperial, Calif	108	18	17
Total, 12 areas	2,496	879	35

3/ The field survey and preliminary tabulations were made by Crossley S-D Surveys, Inc., under contract with USDA's Agricultural Research Service, of which the Farm Production Economics Division was then a part.

Table 2. --Number of truck-crop plantings produced for fresh market and for processing, and the percentage produced under contract, 12 selected areas, 1958-59 1/

County and State	Plantings produced for--		Percentage of plantings produced under contract	
	Fresh market	Processing	Fresh market	Processing
	Number	Number	Percent	Percent
Erie, N. Y	797	137	4	79
Berrien-Van Buren, Mich	344	354	1	39
Columbia, Wis	6	112	33	99
Accomack-Northampton, Va	459	60	1	48
Colquitt, Ga	203	2	0	100
Broward-Palm Beach, Fla	324	7	0	43
Cameron-Hidalgo, Tex	639	51	5	61
Yakima, Wash	289	178	15	84
Marion, Oreg	34	209	9	90
San Joaquin, Calif	241	171	5	60
Monterey, Calif	172	42	44	76
Imperial, Calif	216	7	10	71
Total, 12 areas	3,724	1,330	6	66

1/ A truck-crop planting consists of all the acreage of each truck crop grown by each grower in each year.

EXTENT OF CONTRACT PRODUCTION

The extent of contract production and other forms of vertical coordination in vegetable production can be measured in several ways. Information obtained in this study covered coordination by growers, by number of plantings harvested, and by acreage harvested.

Contracting was practiced by 35.2 percent of all growers interviewed, but only 22.2 percent of the plantings harvested, and 20.2 percent of the acreage harvested were grown under contract (table 3). Contracting may be more prevalent than these survey estimates indicate. Some verbal contracts are probably not reported because the growers do not think of them as contracts.

Vertical integration in which dealers or processors grew vegetables as a part of their own operations, accounted for only 5.2 percent of the growers and 4.4 percent of the plantings. However, these operations were much larger and included 21.8 percent of the acreage covered in the sample.

The only other recent attempt to estimate the aggregate percentage of contract production in vegetable crops in the United States was undertaken by the Bureau of the Census in the 1960 Sample Survey of Agriculture (13). This survey showed that the number of farms reporting contracts in 1960 constituted 25.4 percent of the number reporting sales of vegetables in 1959. Sales of vegetables from farms reporting contracts made up 35.6 percent of the total sales of all vegetables in 1960. These

Table 3. --Percentage of growers, of plantings, and of acreage of truck crops for all uses (fresh market and processing) under contract and under vertical integration, 12 selected areas, 1958-59

Item	Contract production	Vertical integration 1/
	Percent	Percent
Growers	35.2	5.2
Plantings	22.2	4.4
Acreage	20.2	21.8

1/ Vertical integration here means those operations in which the producer of the crop was also a dealer, processor, or shipper of that crop.

census estimates were obtained from a relatively small sample and with a random sampling scheme that has a large margin of error for crops such as vegetables that grow in concentrated areas. Nevertheless, the estimates are in the same general range as those in this study.

Vegetables for Fresh Market and for Processing

The extent of contracting and vertical integration differ considerably between vegetables grown for fresh market and for processing (table 4). About two-thirds of the acreage in processing vegetables in the sample areas was found to be under contract as contrasted with only 8.4 percent for fresh market vegetables. On the other hand, vertical integration was higher for fresh-market than for processing vegetables. Taking contracting and vertical integration together, 70.1 percent of the acreage of vegetables for processing was under these forms of coordination. About a third of the total acreage for fresh market was grown under both forms of coordination.

Another set of estimates of the extent of contracting and vertical integration in vegetable production on a national basis appears in the recent U. S. Department of Agriculture report on "Vertical Coordination in Agriculture" (10). 4/ They indicate that about 30 percent of the vegetable production for fresh market and 70 percent of the output for processing were grown under integrated and contractual arrangements. These estimates were informed judgments based on discussions with specialists familiar with vegetable production in various parts of the country. They were made for approximately the same time period (1958-59). Their agreement with the estimates developed in the present survey is remarkably close.

4/ See also a 1958 report on "Contract Farming and Vertical Integration in Agriculture" (14). The recent book by E. P. Roy, "Contract Farming, U.S.A." (12), quotes the same estimates given in the 1958 report. Other scattered references appear in a bibliography by N. G. Larson (9).

Table 4. --Percentage of the acreage of truck crops for fresh market and for processing grown under contract and under vertical integration, 12 selected areas, 1958-59

Item	Contract production	Vertical integration 1/	Contract and integration
	Percent	Percent	Percent
Fresh market	8.4	26.1	34.5
Processing	65.3	4.8	70.1
All uses	20.2	21.8	42.0

1/ Vertical integration here means those operations in which the producer of the crop was also a dealer, processor, or shipper of that crop.

Farmer Cooperatives and Contract Production

Nearly a third (32 percent) of the growers with contracts in this study reported contracts with cooperatives (table 5). The range was from none in the Florida and Georgia areas to about half in Michigan and Oregon. About a third of the contracts in the Yakima, Wash., area were with cooperatives as were about a fourth of those in Erie, N. Y., San Joaquin, Calif., and Monterey, Calif.

Contracts between members and their cooperatives take many forms, from relatively loose marketing arrangements to tightly controlled production contracts in which a perishable product depends on closely supervised operations. The data obtained may represent an understatement of the significance of farmer cooperatives in the contracting field. Some members of cooperatives may not realize that they are under contract.

Table 5. --Number of growers of truck crops with contracts, and number and percentage where contracts were with cooperatives, 12 selected areas, 1958-59

County and State	Growers with contracts	Growers contracting with cooperatives	Percentage with cooperatives
	Number	Number	Percent
Erie, N. Y	81	19	23
Berrien-Van Buren, Mich	120	58	48
Columbia, Wis	88	13	15
Accomack-Northampton, Va	25	3	12
Colquitt, Ga	2	0	0
Broward-Palm Beach, Fla	2	0	0
Cameron-Hidalgo, Tex	51	10	20
Yakima, Wash	169	55	33
Marion, Oreg	142	75	53
San Joaquin, Calif	106	25	24
Monterey, Calif	75	18	24
Imperial, Calif	18	2	11
Total, 12 areas	879	278	32

Extent of Contracting by Areas and Crops

The percentage of growers reporting contracts in the 12 selected areas varied from less than 1 percent in Georgia and Florida to 84 percent in Oregon, and 90 percent in Wisconsin. The Georgia and Florida areas were engaged mainly in producing vegetables for fresh market and included a high proportion of large-scale integrated operations. Growers in the Oregon and Wisconsin areas were producing vegetables for processing, which required the close technical controls and supervision possible with contracts.

Some of the variations in the percentage of acreage contracted and integrated by individual truck crops, both for processing and fresh market, are shown in figure 4. Note, for example, that nearly all green peas for processing are produced under contract. Controlling quality is especially significant with this crop. A smaller but substantial proportion of tomatoes for processing are also grown under contract. Although quality is easier to control in tomatoes than in peas, scheduling, pricing, and other items can present just as many problems.

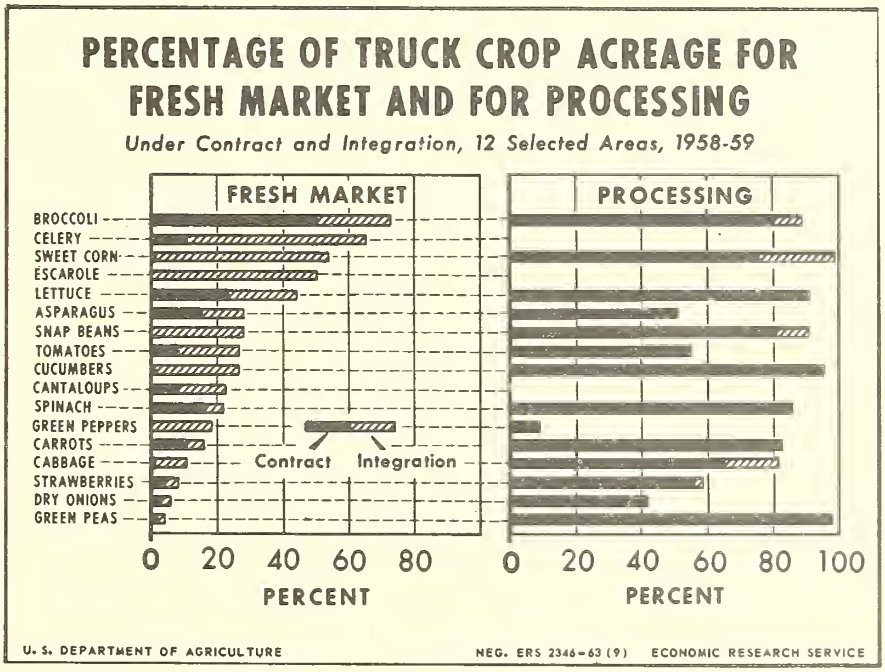

Figure 4

PRICE ARRANGEMENTS IN CONTRACTS

A production contract is usually in some degree an advance or forward sale of a commodity or a set of services. One would therefore expect to find some price specifications in the contract. A high proportion of growers with contracts said that the contract stated a price or indicated how the price was to be figured.

A frequency distribution of 35 crops, for which there were 5 or more contracts each, shows that for nearly half of the crops more than 50 percent of the contracts stated the price, and about two-thirds indicated how the price was to be figured (table 6).

Table 6. --Distribution of 35 vegetable crops grown under contract, according to the percentage of contracts specifying price, and how price was figured for each vegetable crop, selected areas, 1935-39 1/

Percentage of contracts	Number of vegetable crops grown under contract specifying--	
	Price	How price was figured
	Number	Number
0 to 25 percent	11	4
26 to 50 percent	8	9
51 to 75 percent	1	9
76 to 100 percent	15	13
Total	35	35

1/ Consolidated from data shown in table 11.

Questions on price specifications are not easy to handle with direct interviews. Presumably there is some understanding about price with every contract, even though it may be no more than the market price at the time of delivery. The findings reported in the survey no doubt reflect the growers' best memory of the specifications stated in the contracts. Yet they probably fall short of revealing the full situation. Some contracts are oral rather than written and some may not be read carefully with respect to general price statements. This might be the case when a general market price at time of delivery is indicated.

The two categories, price and how price was figured, were apparently interpreted in various ways. Sometimes they appear to be mutually exclusive, and sometimes they overlap. We cannot always be sure. Certain area differences are evident. Nearly all contracts in Wisconsin, Virginia, Texas, and Washington specified price. Very few in Oregon, Monterey, Calif., and Imperial, Calif., do so. The answers received in the western areas may be due to pooling arrangements which are more prevalent there.

GENERAL SPECIFICATIONS IN CONTRACTS

Most contracts contain a number of specifications in addition to price terms. These relate to place and time of delivery, grade, variety, cultural practices, inspection, and other specifications designed to make sure that the final product is the one that is wanted by the contractor to supply his market. Specifications, properly drawn, should protect both parties to the contract. Commodities that are grown in open production without market commitment can be priced in accordance with their characteristics at the time they come to market. A forward contract that includes a price, or at least some marketing arrangements, must involve some formal forward commitments about specifications to avoid buying and selling a "pig in a poke."

The percentages of all contracts reporting specified items in 1958-59 in this study are compared with corresponding percentages for comparable items covered in the "1960 Sample Survey of Agriculture" by the Bureau of the Census (13) (table 7). The census percentages are generally higher. This is probably due to differences in the samples drawn, but also may suggest some underestimation in this study.

Table 7. --Percentage of contracts reporting specified items in this study, 1958-59, compared with data from Bureau of the Census, "1960 Sample Survey of Agriculture"

Contract item (specifying)	This study 1/	1960 Sample Survey (13)
	Percent	Percent
Price	47.5	71.4
How price is figured	58.3	75.5
Place of delivery	79.1	93.9
Grade to deliver	48.0	59.2
Time of delivery	38.5	---
Variety of crop	54.2	73.5
Cultural practices	20.3	---
Kinds of seed	43.7	---
Kinds of fertilizer	18.5	---
Kinds of pesticides	28.2	---
Fieldman	74.7	71.4
Capital or labor provided for:		
Machinery for production	6.7	---
Machinery for harvesting	25.5	42.3
Labor for production	4.6	---
Labor for harvesting	28.2	44.9
Seed	32.0	---
Fertilizer	13.8	---
Pesticides	15.3	---
Containers	58.8	---
Credit provided for:		
Grower	34.5	---
Machinery	8.0	8.2
Seed	25.9	---
Fertilizer	13.3	---
Pesticides	8.1	---
Other	.4	---

1/ Percentage of all contracts with 5 or more growers reporting a product under contract in an area.

Place of Delivery

Most contracts state a place of delivery, but there were a few crops and areas for which this was not explicitly indicated. For example, most Texas contracts to grow carrots for processing and blackeyed peas for fresh market did not specify a place of delivery; nor did most Monterey, Calif., contracts to grow broccoli for processing. In some instances, the contractor does the harvesting with his own crew and obviously the place of delivery does not need to be specified. Sometimes customary practices or the lack of alternative delivery points may make it unnecessary.

Grade

The term grade may be considered broadly to include any specified description of the kind or quality to be delivered. About half of all contracts reported included grade specifications in this descriptive sense, but the percentage varied greatly between commodities and areas. The percentages of contracts with grade specifications ranged from none for strawberries in Michigan to 95 percent for tomatoes for processing in San Joaquin, Calif. The percentages for tomatoes for processing in different areas were as follows: Erie, N. Y., 55 percent; Berrien-Van Buren, Mich., 36 percent; Yakima, Wash., 75 percent; San Joaquin, Calif., 95 percent; and Monterey, Calif., 73 percent.

Grade specifications are less necessary if other factors such as kind of seed, field inspection, timing of harvest, and related practices are controlled. In older areas, or with experienced growers, grade and other specifications are less essential and may not always be enumerated in the contract.

Time of Delivery

Time of delivery is sometimes significant but was specified in less than half of the contracts for some crops and areas. The characteristics of the crop may often influence this element. For example, no delivery time was specified for strawberries in New York and Michigan. With perennial crops, it would seem difficult to do much about modifying delivery time, except when laying out new plantings, or when variety differences can be taken into account to spread the season. Some small differences may be obtained by cultural practices, but the chief determinant is weather.

Time of delivery is important for crops such as green peas, snap beans, and sweet corn because of rapid quality changes as maturity is approached. Careful scheduling of planting dates, choice of varieties, and various cultural practices can be used to control time of delivery for these crops. For crops harvested by the contractor, time of delivery would not need to be specified, although planting time might.

Variety and Kinds of Seed or Plants

The variety to grow was specified in more than half of all contracts. Specifying the kind of seed is a more certain way of accomplishing the same end. In a few instances, the kind of seed was specified more frequently than the variety of crop. Comparison of the answers given to these two questions shows a good deal of duplication. We can assume that under most contracts variety was adequately controlled.

Green peas and sweet corn for processing are two crops with a high percentage of contracts naming both variety and seed. Control of seed and other practices is closely related to quality in these crops.

For the perennials, strawberries and asparagus, varieties and plants were less often specified, but this may only mean that most of the contracts were related to old plantings. No doubt most growers planted new beds with an eye to the potential demands of contractors and consumers.

Cultural Practices

The percentages of contracts specifying cultural practices not already indicated in the other listed categories varied greatly. The vague meaning of the term cultural practices, in the presence of more precise terms, probably accounts for this variation. It tends to include all items not otherwise accounted for, or to be neglected entirely. The extent of specification of cultural practices may also have been understated because of the activity of fieldmen in this area. With a fieldman advising him, the grower may not be aware that the practices are also specified in the contract.

Fertilizer and Pesticides

Definite requirements for fertilizer and pesticides were not listed in many contracts except in the Washington and Oregon areas. Perhaps it is assumed that growers will generally follow the best practices or that the advice of the fieldman will be sufficient.

Fieldmen

Three-fourths of the contracts provided for fieldmen to give advice and to inspect fields. This is the contractor's way of maintaining good relationships and seeing that the various controls really work. The fieldman provides management and supervision, from the contractor's point of view, and is a bridge between grower and contractor. The fieldman helps the vegetable grower decide when to apply pesticides, what cultural practices to follow, and when to harvest. He also helps to keep the processing plant operating smoothly by scheduling the various growers' fields for harvest.

Evaluation of Specification Elements

In interpreting the answers of vegetable growers to the interviewer's questions it must be considered that the responses were from memory, usually without benefit of the presence of the written contract. Further, many contracts were oral, rather than written. Probably most oral contracts are backed up by some sort of written prospectus, but the grower may never have seen this. Consequently, the answers to many questions are the growers' best efforts to respond against a background that includes all the usual hazards of memory bias, as well as differences in application that arise in operations that are extremely varied and complex.

The same specifications may be applied differently, depending on a grower's financial situation, his experience and his knowledge of the crop. A new grower will receive more help than usual from the fieldman and may be more impressed with the written specifications. An older, more experienced grower under the same contract may have forgotten that certain items are covered because they have never come to his attention.

Different parts of the same basic contract may be stressed in succeeding years because of varying weather and crop conditions. Some practices are well established in one area, whereas in another they must be included as part of a technical aid program. A cooperative may emphasize some cultural practices more than a private firm, because its interests coincide more nearly with those of its members.

In some instances, contracts come close to being land leases--that is the owner receives a payment for the use of his land with a limited amount of land preparation thrown in.

CAPITAL OR LABOR PROVIDED AND CREDIT EXTENDED

In this study, an attempt was made to determine separately what capital goods and labor were provided by the contractor, and what credit was extended for financing these items. The separation is imperfect because of differences in interpretation. Seeds or plants, for example, may be provided by the contractor, but the cost is charged to the grower when his account is settled at the end of the season. This is really a credit extension. Of course, it is a more restricted form of credit than if the credit were available for purchases from a third party.

If the contractor absorbs the costs of the supplies advanced, these costs are a factor in setting the price that the grower finally receives. Each situation shades into the next, so that dividing lines are blurred.

If one takes the survey findings with proper reservations, it is evident that a large percentage of contracts provided growers with at least some labor, equipment, and supplies, and advanced some credit, or did both (table 7).

Most of the machinery and equipment provided by contractors was for harvesting rather than for production operations. Some contractors do the entire harvesting operation for certain crops with their own labor and equipment. This is frequently so for green peas and sweet corn in Wisconsin, New York, and Washington; and for many crops in California and Texas. Frequently, the most efficient sizes of harvesting machinery are too large and expensive to be owned by a single grower, and can be provided more economically by a processor who can cover more acreage and thus keep the unit cost lower. A related factor is the technology of quality control. The processor is more likely to have knowledge of the technical factors that will assure quality in the final product. Hence, the harvesting decisions are better made by the processor than by the grower.

The harvest labor provided by the contractor may also be more experienced and skilled with specialized equipment than the grower's regular work force. If crew labor is involved, the processing company may be in a better position to recruit, organize, and supervise effectively. Seasonal workers can be assured of more continuous work and better working conditions if arrangements are centralized.

Estimates in this study do not show all the capital equipment and labor provided by contractors because the grower often is either unaware of some items or does not consider them part of the farming operation because they are not under his supervision. For example, in harvesting lettuce, carrots, and green peas the contractor takes over completely in the late production and harvesting stages, and integrates these functions with the packing and processing stages.

Very little credit was extended for the purchase of equipment, except to some growers in Wisconsin for green peas and sweet corn.

Labor was provided for harvesting operations in many contracts, but not often for production operations. A high percentage of contracts in the Wisconsin, Texas, and Monterey, Calif., areas provided harvesting labor.

Seed or plants were provided under many of the contracts in Michigan, Wisconsin, Texas, Oregon, and Monterey, Calif.

Fertilizer and pesticides were not furnished under many contracts except in Oregon and Monterey, Calif.

Containers were provided most of the time in nearly all areas.

The answers to the question about receiving credit were incomplete for many areas and crops, probably because of some confusion with the preceding question on equipment, labor, and materials furnished by the contractor. Nevertheless, some credit from contractors appeared to be widely used.

Observations on Credit

In general, differences between areas in items furnished and credit extended under contracts seem more significant than differences between crops. Yet some commodity characteristics stand out clearly. Perennial crops, such as strawberries and asparagus, receive less input help and less financing than do annual crops. However, in the Oregon area, the contractor furnishes about as much assistance to the strawberry grower as to others. Most of the labor, equipment, and materials for growing sweet corn and peas in Wisconsin are financed or provided by contractors. Although fewer growers are financed in Imperial, Calif., than elsewhere, the amounts loaned per grower and per acre are higher.

Caution must be used in interpreting these credit findings. For example, reports from Monterey, Calif., indicate practically no credit extension; yet the percentage of contracts with inputs supplied is very high. Apparently the terms of contracts in this area call for substantial advances of materials without this being regarded as a form of credit extension.

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APPENDIX

Table 8. --Total acreage of principal truck crops grown for fresh market and percentage under contractual and integrated arrangements, selected areas, 1958-59

Crop	Acreage			Percentage	
	Harvested	Contracted	Integrated	Contracted	Integrated
	Acres	Acres	Acres	Percent	Percent
Asparagus	13,151	1,970	1,760	15.0	13.4
Green lima beans	304	120	13	39.5	4.3
Snap beans	19,581	59	5,456	.3	27.9
Beets	234	36	5	15.4	2.1
Broccoli	1,411	698	237	49.5	16.8
Cabbage	7,240	84	715	1.2	9.9
Cantaloups	4,304	352	650	8.2	15.1
Carrots	9,391	990	513	10.5	5.5
Cauliflower	523	20	80	3.8	15.3
Celery	7,315	810	3,909	11.1	53.4
Sweet corn	23,999	158	12,843	.7	53.5
Cucumbers	2,046	30	528	1.5	25.8
Eggplant	785	0	89	0	11.3
Escarole	3,049	0	1,534	0	50.3
Lettuce	32,592	7,345	6,875	22.5	21.1
Onions, dry	2,722	88	72	3.2	2.7
Onions, green	327	75	150	22.9	45.9
Green peas	493	12	9	2.4	1.8
Green peppers	3,874	0	755	0	19.5
Spinach	577	93	34	16.1	5.9
Squash	1,410	60	123	4.3	8.7
Strawberries	1,810	77	68	4.2	3.8
Tomatoes	11,252	913	2,163	8.1	19.2
Watermelons	3,319	0	21	0	.6

Table 9.--Total acreage of principal truck crops grown for processing and percentage under contractual and integrated arrangements, selected areas, 1958-59

Crop	Acreage			Percentage	
	Harvested	Contracted	Integrated	Contracted	Integrated
	Acres	Acres	Acres	Percent	Percent
Asparagus	4,549	2,316	23	50.9	0.5
Green lima beans	207	207	0	100.0	0
Snap beans	9,251	7,578	911	81.9	9.8
Beets	440	408	0	92.7	0
Broccoli	551	440	50	79.8	9.1
Cabbage	92	60	15	65.2	16.3
Carrots	749	623	0	83.2	0
Cauliflower	217	115	0	53.0	0
Sweet corn	4,534	3,440	1,048	75.9	23.1
Cucumbers	338	324	0	95.9	0
Lettuce	110	100	0	90.9	0
Onions, dry	464	195	0	42.0	0
Onions, green	32	0	0	0	0
Green peas	1,578	1,553	0	98.4	0
Green peppers	534	49	0	9.2	0
Spinach	1,026	886	0	86.4	0
Squash	53	53	0	100.0	0
Strawberries	1,306	743	33	56.9	2.5
Tomatoes	18,905	10,303	111	54.5	.6

Table 10.--Acreage of truck crops harvested, under contract, and integrated, 12 selected areas, 1958-59

State and county	Acreage			Contract acreage as percentage of total	Integrated acreage as percentage of total
	Harvested	Under contract	Integrated		
	Acres	Acres	Acres	Percent	Percent
Erie, N. Y	10,444	7,134	820	68.3	7.9
Berrien-Van Buren, Mich	5,003	1,104	26	22.1	.5
Columbia, Wis	1,929	1,740	150	90.2	7.8
Accomack-Northampton, Va	10,976	1,027	2,432	9.4	22.2
Colquitt, Ga	1,600	3	0	.2	0
Broward-Palm Beach, Fla	77,019	357	33,264	.5	43.2
Cameron-Hadilgo, Tex	18,469	2,058	40	11.1	.2
Yakima, Wash	6,128	4,602	0	75.1	0
Marion, Oreg	3,042	2,550	0	83.8	0
San Joaquin, Calif	33,383	10,396	2,180	31.1	6.5
Monterey, Calif	17,767	9,968	3,711	56.1	20.9
Imperial, Calif	32,230	3,276	5,646	10.2	17.5
Total	217,990	44,215	48,269	20.3	22.1

Table 11. --Price agreements in truck crop contracts, selected areas and crops, 1958-59

Area and crop 1/	Percentage of contracts which stated--	
	Price	How price was figured
	Percent	Percent
Erie, N. Y.:		
Snap beans (P)	17	37
Green peas (P)	80	89
Tomatoes (P)	41	55
Strawberries (P)	20	50
Berrien-Van Buren, Mich.:		
Asparagus (P)	11	18
Snap beans (P)	83	67
Cucumbers (P)	60	60
Tomatoes (P)	21	21
Strawberries (P)	0	0
Columbia, Wis.:		
Green peas (P)	97	93
Sweet corn (P)	100	88
Accomack-Northampton, Va.:		
Snap beans (P)	100	100
Cameron-Hidalgo, Tex.:		
Snap beans (P)	100	100
Carrots (P)	88	75
Beets (P)	90	80
Yakima, Wash.:		
Asparagus (P)	27	52
Sweet corn (P)	95	77
Green peas (P)	100	90
Tomatoes (P)	100	100
Asparagus (F)	24	51
Marion, Oreg.:		
Sweet corn (P)	23	50
Strawberries (PNB)	11	37
Strawberries (P)	11	44
Cauliflower (P)	80	100
Broccoli (P)	44	89
Snap beans (P)	27	42
San Joaquin, Calif.:		
Tomatoes (P)	84	89
Monterey, Calif.:		
Carrots (F)	31	62
Lettuce (F)	32	37
Broccoli (F)	14	71
Celery (F)	30	80
Tomatoes (P)	81	73
Spinach (P)	100	43
Imperial, Calif.:		
Lettuce (F)	17	17
Tomatoes (F)	33	50

1/ P refers to processing, F to fresh market use, and PNB to processing new bed.

Table 12. --Specifications in truck crop contracts, selected areas and crops, 1958-59

Area and crop 1/	Percentage of contracts that specified--								
	Place of delivery	Grade	Time of delivery	Variety of crop	Cultural practices	Kind of seed	Fertilizer	Pesticides	Fieldman
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Erie, N. Y.:									
Snap beans (P)	67	31	20	20	10	27	2	4	83
Green peas (P)	70	67	44	78	44	89	11	22	89
Tomatoes (P)	70	55	28	15	12	3	0	6	77
Strawberries (P)	67	33	0	0	0	0	0	0	25
Berrien-Van Buren, Mich.:									
Asparagus (P)	68	43	38	7	5	3	3	5	30
Snap beans (P)	67	83	83	83	0	83	0	0	83
Cucumbers (P)	80	80	50	60	20	70	20	20	88
Tomatoes (P)	70	36	47	19	11	66	6	6	70
Strawberries (P)	0	0	0	0	0	0	0	0	40
Columbia, Wis.:									
Green peas (P)	86	19	31	83	26	88	28	48	97
Sweet corn (P)	82	35	39	88	12	88	20	14	96
Accomack-Northampton, Va.:									
Snap beans (P)	88	94	63	94	19	88	0	38	75
Cameron-Hidalgo, Tex.:									
Snap beans (P)	78	67	11	67	11	89	0	0	88
Carrots (P)	13	13	0	63	0	100	25	13	57
Beets (P)	60	40	10	60	0	70	10	0	56
Tomatoes (F)	60	40	20	20	0	40	0	0	50
Carrots (F)	80	20	20	20	0	20	0	20	60
Blackeyed peas (F)	33	33	17	100	0	83	0	17	75
Yakima, Wash.:									
Asparagus (P)	95	47	35	17	18	1	4	29	63
Sweet corn (P)	98	59	78	83	20	98	32	73	95
Green peas (P)	100	30	70	67	50	100	0	100	90
Tomatoes (P)	100	75	63	75	0	13	0	13	13
Asparagus (F)	84	43	38	6	16	0	8	36	49

Area and crop 1/	Percentage of contracts that specified--								
	Place of delivery	Grade	Time of delivery	Variety of crop	Cultural practices	Kind of seed	Fertilizer	Pesticides	Fieldman
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Marion, Oreg.:									
Sweet corn (P)	93	37	62	100	50	83	53	48	96
Strawberries (PNB)	79	32	37	90	32	53	33	39	100
Strawberries (P)	81	42	25	82	27	35	30	39	91
Cauliflower (P)	100	90	60	90	50	80	60	70	100
Broccoli (P)	87	78	33	89	80	70	50	70	100
Snap beans (P)	97	32	48	100	60	71	58	65	90
San Joaquin, Calif.:									
Tomatoes (P)	94	95	67	53	13	15	8	12	78
Monterey, Calif.:									
Carrots (F)	69	54	0	85	54	69	62	46	92
Lettuce (F)	63	43	27	83	41	58	58	61	83
Broccoli (F)	43	43	14	86	29	86	29	29	29
Celery (F)	67	67	33	100	22	80	60	60	44
Tomatoes (P)	87	73	20	73	7	20	0	0	57
Spinach (P)	71	57	14	71	29	43	14	14	86
Imperial, Calif.:									
Lettuce (F)	67	17	0	33	0	17	33	33	33
Tomatoes (F)	100	17	17	0	0	0	0	0	33

1/ P refers to processing, F to fresh market use, and PNB to processing new bed.

Table 13. --Capital or labor provided under contracts to truck crop producers, selected areas and crops, 1958-59

Area and crop 1/	Percentage of contracts that provided--							
	Equipment for--		Labor for--		Seed	Ferti-lizer	Pesti-cides	Con-tainers
	Production	Harvesting	Production	Harvesting				
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Erie, N. Y.:								
Snap beans (P)	0	2	0	4	15	0	0	4
Green peas (P)	11	56	0	67	67	0	11	56
Tomatoes (P)	0	0	0	0	3	0	0	3
Berrien-Van Buren, Mich.:								
Asparagus (P)	0	0	0	0	3	0	0	87
Snap beans (P)	17	33	17	33	83	0	0	100
Cucumbers (P)	10	10	20	60	60	0	10	40
Tomatoes (P)	2	2	2	2	38	0	0	93
Columbia, Wis.:								
Green peas (P)	55	88	12	88	93	36	35	31
Sweet corn (P)	6	96	6	94	98	29	18	11
Accomack-Northampton, Va.:								
Snap beans (P)	0	0	0	13	50	13	6	56
Cameron-Hidalgo, Tex.:								
Snap beans (P)	0	44	0	100	100	0	0	78
Carrots (P)	0	13	0	13	63	13	0	75
Beets (P)	0	30	20	70	80	0	0	40
Tomatoes (F)	0	0	20	80	20	0	0	60
Carrots (F)	0	20	0	80	20	0	0	80
Blackeyed peas (F)	0	17	0	83	100	0	17	0

Area and crop 1/	Percentage of contracts that provided--							
	Equipment for--		Labor for--		Seed	Ferti- lizer	Pesti- cides	Con- tainers
	Production	Harvesting	Production	Harvesting				
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Yakima, Wash.:								
Asparagus (P)	0	0	0	1	2	4	4	87
Sweet corn (P)	31	100	13	95	76	30	61	29
Green peas (P)	0	100	0	90	70	0	70	89
Tomatoes (P)	0	25	0	0	0	0	0	75
Asparagus (F)	0	0	0	0	0	0	0	84
Marion, Oreg.:								
Sweet corn (P)	7	10	0	0	30	23	17	19
Strawberries (PNB)	0	0	0	0	47	42	42	78
Strawberries (P)	1	0	0	0	20	20	23	93
Cauliflower (P)	0	0	0	0	10	10	10	90
Broccoli (P)	0	0	0	0	30	20	20	80
Snap beans (P)	3	7	3	7	37	23	26	77
San Joaquin, Calif.:								
Tomatoes (P)	1	1	1	1	10	5	6	57
Monterey, Calif.:								
Carrots (F)	31	92	9	92	46	69	46	75
Lettuce (F)	10	81	52	88	39	48	45	83
Broccoli (F)	0	71	14	86	29	29	29	71
Celery (F)	0	70	20	90	20	50	60	78
Tomatoes (P)	0	33	0	27	7	0	0	80
Spinach (P)	0	100	0	100	14	14	14	29
Imperial, Calif.:								
Lettuce (F)	17	100	17	100	17	17	17	100
Tomatoes (F)	0	17	0	17	0	0	0	50

1/ P refers to processing, F to fresh market use, and PNB to processing new bed.

Table 14. --Extent and purpose of credit extended under contracts to truck crop producers, selected areas and crops, 1958-59

Area and crop 1/	Percentage receiving credit	Average amount		Percentage of contracts using credit for--				
		Per contract	Per acre	Equipment	Seed	Ferti- lizer	Pesti- cides	Thinning and weeding
	Percent	Dollars	Dollars	Percent	Percent	Percent	Percent	Percent
Erie, N. Y.:								
Snap beans (P)	45	---	---	---	---	---	---	---
Green peas (P)	50	---	---	20	100	---	---	---
Tomatoes (P)	6	---	---	---	---	---	---	---
Berrien-Van Buren, Mich.:								
Snap beans (P)	50	---	---	0	100	0	0	0
Cucumbers (P)	10	---	---	0	100	0	0	0
Tomatoes (P)	40	---	---	10	91	0	0	0
Columbia, Wis.:								
Green peas (P)	97	607	3.93	63	98	55	20	0
Sweet corn (P)	96	232	1.57	53	98	38	2	0
Accomack-Northampton, Va.:								
Snap beans (P)	44	466	1.97	0	100	29	14	0
Cameron-Hidalgo, Tex.:								
Snap beans (P)	22	232	20.22	0	100	0	0	0
Carrots (P)	75	498	14.44	17	33	0	17	33
Beets (P)	50	283	13.87	0	100	0	0	0
Carrots (F)	80	1,200	32.21	0	25	25	25	0
Blackeyed peas (F)	100	110	1.79	0	50	0	17	0
Yakima, Wash.:								
Asparagus (P)	8	434	3.18	0	29	57	0	0
Sweet corn (P)	59	742	2.02	42	83	63	58	0
Green peas (P)	50	1,101	3.90	0	80	0	20	0
Asparagus (F)	5	400	1.63	0	0	50	0	0

Area and crop 1/	Percentage receiving credit	Average amount		Percentage of contracts using credit for--				
		Per contract	Per acre	Equipment	Seed	Ferti- lizer	Pesti- cides	Thinning and weeding
	Percent	Dollars	Dollars	Percent	Percent	Percent	Percent	Percent
Marion, Oreg.:								
Sweet corn (P)	53	703	2.66	0	75	69	25	0
Strawberries (PNB)	63	1,178	16.15	0	75	67	42	0
Strawberries (P)	33	887	14.08	0	57	39	43	4
Cauliflower (P)	60	496	8.26	0	83	67	83	0
Broccoli (P)	50	2,237	7.04	0	60	60	80	0
Snap beans (P)	61	1,923	9.91	5	74	58	58	5
San Joaquin, Calif.:								
Tomatoes (P)	16	1,455	3.13	7	87	47	40	0
Monterey, Calif.:								
Carrots (F)	8	---	---	0	100	0	0	0
Spinach (P)	14	---	---	0	100	0	0	0
Imperial, Calif.:								
Lettuce (F)	17	19,125	125.00	---	---	---	---	---
Tomatoes (F)	33	10,500	233.33	---	---	---	---	---

1/ P refers to processing, F to fresh market use, and PNB to processing new bed.

Table 15. --Price specification in truck crop contracts, selected crops and areas, 1958-59

Crop and area	Type of contract	Percentage of contracts which stated--	
		Price	How price was figured
		Percent	Percent
Tomatoes:			
Erie, N. Y	Processed	41	55
Berrien-Van Buren, Mich	do.	21	21
Yakima, Wash	do.	100	100
San Joaquin, Calif	do.	84	89
Monterey, Calif	do.	81	73
Imperial, Calif	do.	33	50
Snap beans:			
Erie, N. Y	do.	17	37
Berrien-Van Buren, Mich	do.	83	67
Accomack-Northampton, Va	do.	100	100
Cameron-Hidalgo, Tex	do.	100	100
Marion, Oreg	do.	27	42
Green peas:			
Erie, N. Y	do.	80	89
Yakima, Wash	do.	100	90
Columbia, Wis	do.	97	93
Sweet corn:			
Yakima, Wash	do.	95	77
Columbia, Wis	do.	100	88
Marion, Oreg	do.	23	50
Strawberries:			
Erie, N. Y	do.	20	50
Marion, Oreg	do.	23	50
Marion, Oreg	Processing new bed	11	37
Asparagus:			
Berrien-Van Buren, Mich	Processed	11	18
Yakima, Wash	do.	27	52
Yakima, Wash	Fresh	24	51
Carrots:			
Monterey, Calif	do.	31	62
Cameron-Hidalgo, Tex	Processed	88	75
Broccoli:			
Monterey, Calif	Fresh	14	71
Marion, Oreg	Processed	44	89
Lettuce:			
Monterey, Calif	Fresh	32	37
Imperial, Calif	do.	17	17

Table 16. --Specifications in truck crop contracts, selected crops and areas, 1958-59

Crop and area 1/	Percentage of contracts that specified--								
	Place of delivery	Grade	Time of delivery	Variety of crop	Cultural practices	Kind of seed	Fertilizer	Pesticides	Fieldman
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Tomatoes:									
Erie, N. Y. (P)	70	55	28	15	12	3	0	6	77
Berrien-Van Buren, Mich. (P)	70	36	47	19	11	66	6	6	70
Yakima, Wash. (P)	100	75	63	75	0	13	0	13	13
San Joaquin, Calif. (P)	94	95	67	53	13	15	8	12	78
Monterey, Calif. (P)	87	73	20	73	7	20	0	0	57
Imperial, Calif. (F)	100	17	17	0	0	0	0	0	33
Cameron-Hidalgo, Tex. (F)	60	40	20	20	0	40	0	0	50
Snap beans:									
Erie, N. Y. (P)	67	31	20	20	10	27	2	4	83
Berrien-Van Buren, Mich. (P)	67	83	83	83	0	83	0	0	83
Accomack-Northampton, Va. (P)	88	94	63	94	19	88	0	38	75
Cameron-Hidalgo, Tex. (P)	78	67	11	67	11	89	0	0	88
Marion, Oreg. (P)	97	32	48	100	60	71	58	65	90
Green peas:									
Erie, N. Y. (P)	70	67	44	78	44	89	11	22	89
Yakima, Wash. (P)	100	30	70	67	50	100	0	100	90
Columbia, Wis. (P)	86	19	31	83	26	88	28	48	97
Sweet corn:									
Yakima, Wash. (P)	98	59	78	83	20	98	32	73	95
Columbia, Wis. (P)	82	35	39	88	12	88	20	14	96
Marion, Oreg. (P)	93	37	62	100	50	83	53	48	96
Strawberries:									
Erie, N. Y. (P)	67	33	0	0	0	0	0	0	25
Berrien-Van Buren, Mich. (P)	0	0	0	0	0	0	0	0	40
Marion, Oreg. (PNB)	79	32	37	90	32	53	33	39	100
Marion, Oreg. (P)	81	42	25	82	27	35	30	39	91
Asparagus:									
Berrien-Van Buren, Mich. (P)	68	43	38	7	5	3	3	5	30
Yakima, Wash. (F)	84	43	38	6	16	0	8	36	49
Yakima, Wash. (P)	95	47	35	17	18	1	4	29	63

See footnote at end of table.

Table 16. --Specifications in truck crop contracts, selected crops and areas, 1958-59--Continued

Crop and area 1/	Percentage of contracts that specified--								
	Place of delivery	Grade	Time of delivery	Variety of crop	Cultural practices	Kind of seed	Fertilizer	Pesticides	Fieldman
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Carrots:									
Monterey, Calif. (F)	69	54	0	85	54	69	62	46	92
Cameron-Hidalgo, Tex. (P)	13	13	0	63	0	100	25	13	57
Cameron-Hidalgo, Tex. (F)	80	20	20	20	0	20	0	20	60
Broccoli:									
Monterey, Calif. (F)	43	43	14	86	29	86	29	29	29
Marion, Oreg. (P)	87	78	33	89	80	70	50	70	100
Lettuce:									
Monterey, Calif. (F)	63	43	27	83	41	58	58	61	83
Imperial, Calif. (F)	67	17	0	33	0	17	33	33	33
Cucumbers:									
Berrien-Van Buren, Mich.(P)	80	80	50	60	20	70	20	20	88
Spinach:									
Monterey Calif. (P)	71	57	14	71	29	43	14	14	86
Imperial, Calif. (P)	67	17	0	33	0	17	33	33	33

1/ P refers to processing, F to fresh market use, and PNB to processing new bed.

Table 17. --Capital or labor provided under contracts to truck crop producers, selected crops and areas, 1958-59

Crop and area 1/	Percentage of contracts that provided--							
	Equipment for--		Labor for--		Seed	Fertilizer	Pesticides	Containers
	Production	Harvesting	Production	Harvesting				
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Tomatoes:								
Erie, N. Y. (F)	0	0	0	0	3	0	0	3
Berrien-Van Buren, Mich. (P)	2	2	2	2	38	0	0	93
Yakima, Wash. (P)	0	25	0	0	0	0	0	75
San Joaquin, Calif. (P)	1	1	1	1	10	5	6	57
Monterey, Calif. (P)	0	33	0	27	7	0	0	80
Imperial, Calif. (F)	0	17	0	17	0	0	0	50
Cameron-Hidalgo, Tex. (F)	0	0	20	80	20	0	0	60
Snap beans:								
Erie, N. Y. (P)	0	2	0	4	15	0	0	4
Berrien-Van Buren, Mich. (P)	17	33	17	33	83	0	0	100
Accomack-Northampton, Va. (P)	0	0	0	13	50	13	6	56
Cameron-Hildalgo, Tex. (P)	0	44	0	100	100	0	0	78
Marion, Oreg. (P)	3	7	3	7	37	23	26	77
Green peas:								
Erie, N. Y. (P)	11	56	0	67	67	0	11	56
Yakima, Wash. (P)	0	100	0	90	70	0	70	89
Columbia Wis. (P)	55	88	12	88	93	36	35	31
Sweet corn:								
Yakima, Wash. (P)	31	100	13	95	76	30	61	29
Columbia, Wis. (P)	6	96	6	94	98	29	18	11
Marion, Oreg. (P)	7	10	0	0	30	23	17	19
Strawberries:								
Marion, Oreg. (PNB)	0	0	0	0	47	42	42	78
Marion, Oreg. (P)	1	0	0	0	20	20	23	93
Asparagus:								
Berrien-Van Buren,Mich. (P)	0	0	0	0	3	0	0	87
Yakima, Wash. (P)	0	0	0	1	2	4	4	87
Yakima, Wash. (F)	0	0	0	0	0	0	0	84

See footnote at end of table.

Table 17. --Capital or labor provided under contracts to truck crop producers, selected crops and areas, 1958-59--Continued

Crop and area 1/	Percentage of contracts that provided--							
	Equipment for--		Labor for--		Seed	Fertilizer	Pesticides	Containers
	Production	Harvesting	Production	Harvesting				
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Carrots:								
Monterey, Calif. (F)	31	92	9	92	46	69	46	75
Cameron-Hidalgo, Tex. (P)	0	13	0	13	63	13	0	75
Cameron-Hidalgo, Tex. (F)	0	20	0	80	20	0	0	80
Broccoli:								
Monterey, Calif. (F)	0	71	14	86	29	29	29	71
Marion, Oreg. (P)	0	0	0	0	30	20	20	80
Lettuce:								
Monterey, Calif. (F)	10	81	52	88	39	48	45	83
Imperial, Calif. (F)	17	100	17	100	17	17	17	100

1/ P refers to processing, F to fresh market use, and PNB to processing new bed.

Table 18. --Extent and purpose of credit extended under contracts to truck crop producers, selected crops and areas, 1958-59

Crop and area 1/	Percentage receiving credit	Average amount		Percentage of contracts using credit for--				
		Per contract	Per acre	Equipment	Seed	Fertilizer	Pesticides	Thinning and weeding
	Percent	Dollars	Dollars	Percent	Percent	Percent	Percent	Percent
Tomatoes:								
Berrien-Van Buren, Mich. (P)	40	---	---	10	91	0	0	0
San Joaquin, Calif. (P)	16	1,455	3.13	7	87	47	40	0
Imperial, Calif. (F)	33	10,500	233.33	0	100	0	0	0
Snap beans:								
Erie, N. Y. (P)	45	---	---	---	---	---	---	---
Berrien-Van Buren, Mich. (P)	50	---	---	0	100	0	0	0
Accomack-Northampton, Va. (P)	44	466	1.97	0	100	29	14	0
Cameron-Hidalgo, Tex. (P)	22	232	20.22	0	100	0	0	0
Marion, Oreg. (P)	61	1,923	9.91	5	74	58	58	5
Green peas:								
Erie, N. Y. (P)	50	---	---	20	100	---	---	---
Yakima, Wash. (P)	50	1,101	3.90	0	80	0	20	0
Columbia, Wis. (P)	97	607	3.93	63	98	55	20	0
Sweet corn:								
Yakima, Wash. (P)	59	742	2.02	42	83	63	58	0
Columbia, Wis. (P)	96	232	1.57	53	98	38	2	0
Marion, Oreg. (P)	53	703	2.66	0	75	69	25	0
Carrots:								
Cameron-Hidalgo, Tex. (P)	75	498	14.44	17	33	0	17	33
Cameron-Hidalgo, Tex. (F)	80	1,200	32.21	0	25	25	25	0
Broccoli:								
Marion, Oreg. (P)	50	2,237	7.04	0	60	60	80	0

1/ P refers to processing and F to fresh market use.